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004528

October 5, 1990

Site: Bennington, VT
Break: 11.4
Other: Johnson Controls

Christian M. Rascher
Regional Project Manager
ME & VT Superfund Section
United States Environmental
Protection Agency
P.O. Box 1118
Waltham, MA 02254-1118

Re: Bennington Landfill, Bennington, VT

Dear Mr. Rascher:

We are responding on behalf of Johnson Controls, Inc. to correspondence from Region I of the United States Environmental Protection Agency ("U.S. EPA") regarding the site referenced above (the "Site").

GENERAL INFORMATION

1. **Identify the person(s) answering these questions on behalf of Respondent.**

Eric Henningsen, Engineering Manager, Johnson Controls, Inc., P.O. Box 590, Bennington, VT 05201, (802) 442-8126.

2. **List the EPA RCRA Identification Numbers of the Respondent, if any.**

The identification number for Johnson Controls' Bennington plant is VTD001780725.

3. **If you have reason to believe that there may be persons able to provide a more detailed or complete response to any Question contained herein or who may be able to provide additional responsive documents, identify such persons and the additional information or documents that they may have.**

In addition to persons identified in other responses, most of the plant employees (past and present) could be

considered as having information relevant to one or more of U.S. EPA's inquiries. We do not believe any person would have documents responsive to the agency's requests.

4. **Identify all persons, including Respondent's employees, who have knowledge or information about the generation, use, purchase, treatment, storage, disposal or other handling of materials at, or transportation of materials to, the Site.**

As noted, most employees would have some knowledge relevant in one manner or another to the handling of materials at the Bennington plant. The following are likely to possess extensive knowledge about waste stream handling during the relevant period:

James Williams, Plant Manager (retired)
Apple Hill Road
Bennington, VT 05201
(802) 442-4384

Ernie Lampron, Maintenance (current employee)
510 Beech Street
Bennington, VT 05201
(802) 442-2269

George Euzakonis, Maintenance Superintendent (retired)
499 Riverside Avenue
Medford, MA 01247
Telephone number unknown

5. **For each and every Question contained herein, if information responsive to this Information Request is not in your possession, custody, or control, then identify the persons from whom such information may be obtained.**

If the agency is referring to documentary information, we do not know of any not in our possession, custody, or control. If the agency is referring to personal knowledge, as noted, most employees have some knowledge of plant processes.

6. **Identify all persons, including you, who may have arranged for disposal or treatment or arranged for transportation for disposal or treatment of materials at or to the Site [or any transshipment site]. Such persons will hereinafter be referred to as "Generators." In addition, identify:**

Globe-Union Inc., which merged into Johnson Controls, Inc. in 1978, disposed of materials at the Site. Globe-Union operated Johnson Controls' current Bennington plant and was headquartered at 5757 Green Bay Road, Milwaukee, Wisconsin.

a. The persons with whom the Generators made such arrangements (if they were Respondents employees provide copies of the most recent W-2 Form).

Town of Bennington, Vermont.

b. Every date on which each Generator made such shipments.

The company does not have this information. Shipments were made on an as needed basis without documentation.

c. The nature, including the chemical content, characteristics, physical state (e.g., solid, liquid) and quantity (volume and weight) of all hazardous materials involved in each such arrangement, and briefly describe the process that generated these hazardous materials.

Please refer to the documents attached to U.S. EPA's correspondence and the answer to Specific Question # 1, as well as the process description set forth in response to Specific Question # 4.

d. In general terms, the nature and quantity of the non-hazardous materials involved in each such arrangement.

Please refer to the documents attached to U.S. EPA's correspondence. As noted in the documents, the waste materials which did not contain lead would have consisted of mold coatings.

e. The owner of the hazardous materials involved in each such arrangement.

Globe-Union, Inc.

f. All tests, analyses, analytical results or manifests concerning each hazardous material involved in such transactions.

None exist.

g. The precise locations at which each hazardous material involved in such transactions actually was disposed or treated.

Unknown.

h. Who selected the location to which the hazardous materials were to be disposed or treated.

City of Bennington employees.

i. Who selected the Site as the location at which hazardous materials were to be disposed or treated.

Globe-Union Inc.

j. The amount paid in connection with each such arrangement, the method of payment, and the identity of the persons involved in each arrangement.

No payment was made for disposal. Disposal was arranged between Globe-Union and the City of Bennington for all disposal occurrences.

k. Where the persons identified in h., above, intended to have the hazardous materials in each arrangement treated or disposed and all evidence of their intent.

The Site. The persons identified in these responses would have knowledge of this intent.

l. All intermediate sites to which the hazardous materials involved in each arrangement were transshipped, or at which they were stored or held, any time prior to final treatment or disposal.

Not applicable.

m. What was done to the hazardous materials once they were brought to the Site.

Information acquired during the course of the investigation for preparing these responses indicates that liquid waste was placed at the Site in a surface impoundment and solid materials were landfilled.

n. The final disposition of each of the hazardous materials involved in each arrangement.

Unknown.

o. The measures taken by you to determine how and where treatment or disposal of the hazardous materials involved in each arrangement would actually take place.

None.

p. The markings on and type, condition and number of containers in which the hazardous materials were contained when they were stored, disposed, treated, or transported for disposal or treatment.

Materials were generally transported in drums on a flatbed truck to the site. The containers were emptied and returned to the plant for reuse. The company does not know what markings were on the drums, their number, or their condition.

7. Identify all subsidiaries and parent corporations of Respondent.

8. Provide copies of the original and most current Articles of Incorporation and By-laws of Respondent.

9. Identify the managers and majority shareholders of Respondent and the nature of their management duties or amount of shares held, respectively.

10. Please state the correct legal name of your company, agency or business.

11. Identify the state of incorporation, agent for service of process for Respondent.

Respondent's proper legal name is Johnson Controls, Inc. It is incorporated in the State of Wisconsin. Its agent for service of process in Vermont is CT Corporation, c/o Wilson, Powell, Lang & Faris, Ltd., (street address) 192 College Street, Burlington, VT 05401, (mailing address) P.O. Box 567, Burlington, VT 05402. The company is a publicly held corporation. It is the successor-in-interest to Globe-Union Inc. The current management and shareholders of Johnson Controls had no involvement with the business of its predecessor during the time at which disposal at the Site occurred. Accordingly, the information sought in

Question # 9 is irrelevant. Johnson Controls, Inc. has many subsidiaries. However, except as set forth in Specific Question # 7, none of the entities had anything to do with the Site. The company is not providing copies of its articles of incorporation and by-laws because it does not see the relevance to the present matter. Copies will be provided if the agency provides us with reasons for submittal.

SPECIFIC QUESTIONS

1) Refer to enclosed documents #002729 and #002450:

a) describe the chemical composition of the industrial wastes
b) identify the location of solid waste disposal

Most of the entries on the sheet attached to Document # 002450 are self-explanatory. The paint thinner was probably mineral spirits. Methyl ethyl ketone was the solvent of choice at the plant during the relevant time period. The mold coat consisted of nonhazardous materials. Liquid materials were disposed of in the Bennington Landfill during the years the Town operated the surface impoundment, and the mold coat would have been landfilled.

2) Refer to document #002454, what action was taken by respondent for the disposal of metallic sludge?

Current plant personnel believes a reputable company was chosen for disposal. However, they do not know what company was used at the time the document was created, and Johnson Controls does not have documents from that period.

3) Refer to enclosed documents #003262 and #00302, identify:

a) janitors
b) shipping clerks
c) watchmen

a) Ernie Lampron (previously identified)

Art O'Dell
121 Sullivan Street
North Adams, MA 01247
Telephone number unknown

Henry Kulmane
Sandgate, VT
(802) 375-2857

b) Jan Goodrich
North Bennington, Vt 05257
Telephone number unknown

John Dunican
Address and telephone number unknown

c) Certain janitors also served as watchmen. Mr. O'Dell would have been a watchmen. In the early 1970s, a security service was hired and plant personnel were no longer used.

4) Describe the manufacturing process of storage batteries and the waste stream that arises from this process.

Johnson Controls' production of lead-acid batteries at the Bennington plant typically consisted of the following operations:

Casting

Molten lead or lead alloys were poured, by hand or machine, into molds to form grids, connectors, and other parts.

Oxide Mills

Pigs of lead were put into a large ball mill. The lead was oxidized by the heat of the friction induced in the mill. The lead oxide was then separated and collected.

Pasting

Lead oxide was mixed with sulfuric acid, water and minor amounts of additives to form lead oxide paste. The lead oxide paste was then fed into the hopper of the pasting machine. Lead alloy grids from the casting process were fed into the operator end of the pasting machine, under the hopper, where they were filled with the lead oxide paste to the proper pasted plate weight and thickness. The pasted plates proceeded through a drying oven.

Reclaim and Remelt

Scrap pasted plates were fed into a tumbler which separated metallic lead from dry paste. Both were reused. The lead was melted and cast into ingots for reuse in casting. The dry paste was reused in the negative mixing process of pasting.

Element Assembly

Processed plates were assembled by alternating positive and negative plates with separators between the plates. A lead connecting strip was then fused to positive plates on the positive end and another fused on the negative end to create an element. The elements were loaded into battery cases for interconnection to create a battery. Covers were added.

Formation Department

Terminals were added. Dilute sulfuric acid was added to the battery. It was charged, washed and decorated.

The waste streams which are produced during the processes are summarized below:

Equipment	By-Products
Pasting machines	wood fiber sulfuric acid solka floc dynel fiber carbon black barium sulfate paste solid slurry salvage (lead oxide compound with raw materials, solid slurry, off-spec paste)
Oxide mills	Burned oxide
Element assembly	off-spec plates
Formation department	off-spec plates off-spec batteries
Reclaim and remelt	Dross and other scrap materials
Ventilation system	Baghouse dust rotoclone scrubber sludge lead oxide dust in sweeping compounds

In addition, the testing process produced rejected batteries. Wastes containing lead have traditionally been recycled through secondary lead smelters operated by other entities to recover lead values. The only wastes likely to have ended up at the Site during its period of operation are those referenced in the attachments to the agency's request for information.

5) **Please submit the site development plans for the addition of an oxide mill to the rear of the plant in the CI-40 district (September, 1974).**

No such plans were found.

6) **Did Champlain Security submit any reports to Globe Union? If so, please submit all documents.**

No.

7) **Refer to enclosed document #002940:**

a) describe your corporate relationships with the companies listed at the base of the letter.
b) provide the concentration of sulfuric acid and other chemicals in the floor scrubbings.

a) The entities listed at the bottom of the correspondence were probably subsidiaries or divisions of Globe-Union Inc during the period in question. The company is searching for records to determine the exact relationships, but has not located any to date.

b) There is no test data on the floor scrubbings. However, given the volume of water added to the scrubbing and the nature of materials likely to be cleaned, the concentrations of listed chemicals would have been very dilute.

8) **Submit plans for the baffle system installed in the battery charging area in 1970.**

The plant has not been able to find any such plans.

9) **Where does all discharged lead oxide eventually end up?**

We do not understand this question.

10) Refer to enclosed document #002903, what action was taken by respondent pursuant to the recommendation by the Town of Bennington for industrial waste disposal in a tank?

The plant did not take any action pursuant to the Town's recommendations. Current plant personnel believes an alternative disposal company was found prior to the Town's recommendations.

11) Refer to enclosed document #003139, did you ever use any of the companies listed in this letter?

Johnson Controls does not know if any of the companies listed on the referenced document were used for treatment or disposal. No records currently exist concerning these matters.

12) Refer to document #002894, what arrangements were made for the disposal of liquid wastes after the cease dumping order?

While current plant personnel believe a reputable company was used, none can identify what company was used and no relevant documents have been discovered.

13) Refer to enclosed document #002970, identify:

a) J.V. Tierney, Jr.
b) J.J. Groff
c) S.L. Strand
d) W.D. Coulter

a) James V. Tierney
Corporate Manufacturing Vice President (retired)
5480 Lahring Road
Linden, MI (zip code unknown)
Telephone number unknown

b) Jerry J. Groff
Corporate Manager of Environmental Control
(retired)
2115 North 116th Street
Wauwatosa, WI 63226
(414) 258-6022

c) Shel Strand
Bennington Plant Superintendent (retired)
Rural Route 1
St. Joseph, Mo. 64501

(816) 279-4829

d) Wayne Coulter
Bennington Plant Manufacturing Engineer
(ex-employee)
East Ford
Shaftsbury, VT 05262

14) Refer to enclosed document #003126, identify and interview James Williams to determine past disposal practices of Globe Union.

James Williams has been previously identified. U.S. EPA is not authorized by statute to require Johnson Controls to interview a past employee.

15) Provide the chemical composition, waste amounts, disposal dates and ultimate disposal location for lead wastes, neutralized acids, filters containing lead dust, machine shop liquid wastes, wooden pallets and battery plates.

The question does not provide a time frame during which the referenced activities may have occurred. We assume you are referring to activities during operations at the Site. Lead wastes were transported to smelters for recycling, as were filters containing lead dust and scrap battery plates. Such wastes most likely went to the RSR smelter in Middletown, New York. The fate of machine shop liquid wastes has been referenced previously in this response, as has the fate of neutralized acid which would have shown up in floor scrubbings. Wooden pallets would have been burned at the landfill.

The company does not have records indicating the exact chemical composition of these materials. The only quantity estimates which exist are those discussed in the documents attached to U.S. EPA's request for information.

Please refer all future correspondence to:

Thomas J. Courtney
Battery Group Counsel
Johnson Controls, Inc.
P.O. Box 591
Milwaukee, WI 53201
(414) 228-2411

Yours very truly,

Dennis P. Reis

cc: E. Henningsen
T. Courtney